METHOD FOR PROGRAMMING PROGRAMMABLE
ERASELESS MEMORY

ABSTRACT

5   **[0118]**   A method for programming a memory cell is based on applying stress to a memory cell, comprising a first electrode, a second electrode and an inter-electrode layer, to induce a progressive change in a property of the inter-electrode layer. The method includes a verify step including generating a signal, such as a cell current, indicating the value of the property in the selected memory cell. Then, the signal is compared with a

10   reference signal to verify programming of the desired data. Because of the progressive nature of the change, many levels of programming can be achieved. The many levels of programming can be applied for programming a single cell more than once, without an erase process, to programming multiple bits in a single cell, and to a combination of multiple bit and multiple time of programming.

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